

Questions for *Concentration of Solutions*



Chemistry 9th Grade

Student: _____ Section: _____

Date: _____

[https://phet.colorado.edu/sims/html/concentration/latest/
concentration_en.html](https://phet.colorado.edu/sims/html/concentration/latest/concentration_en.html)

Which action(s) will **increase** the concentration of the solution?

- ① Add more $\text{Co}(\text{NO}_3)_2$
- ② Evaporate water
- ③ Drain solution

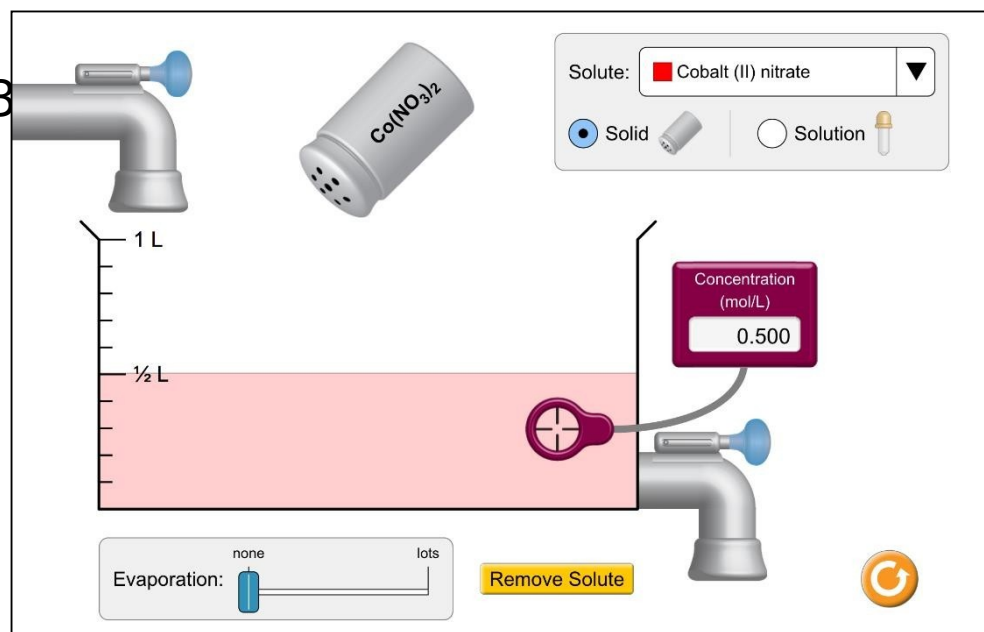
A. (1) only

B. (1) and (2)

C. (2) and (3)

D. (1) and (3)

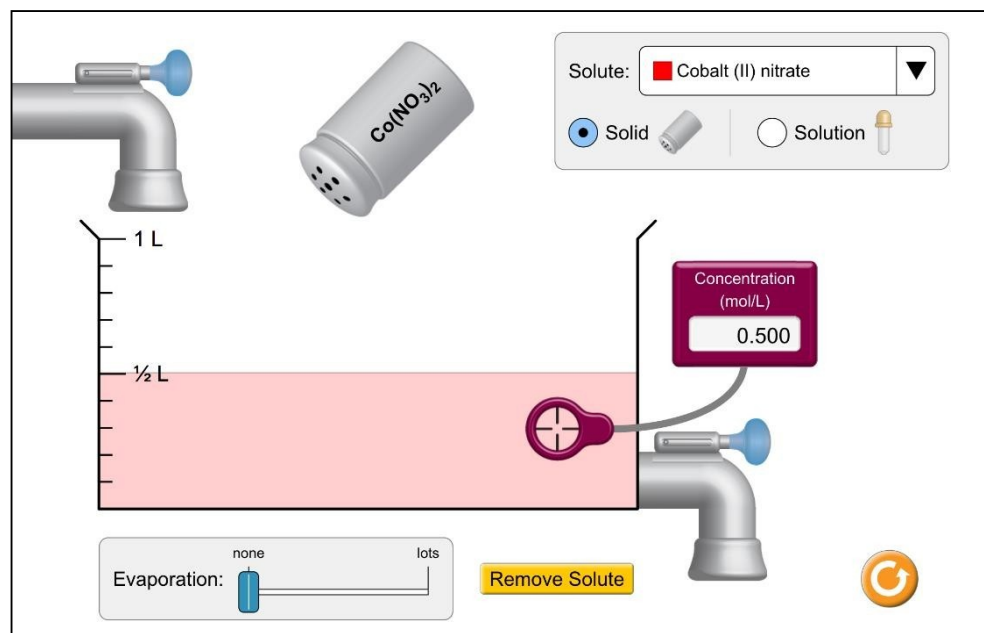
E. (1), (2), and (3)



Which action(s) will change the number of moles of solute in the container?

- ① Add water
- ② Evaporate water
- ③ Drain solution

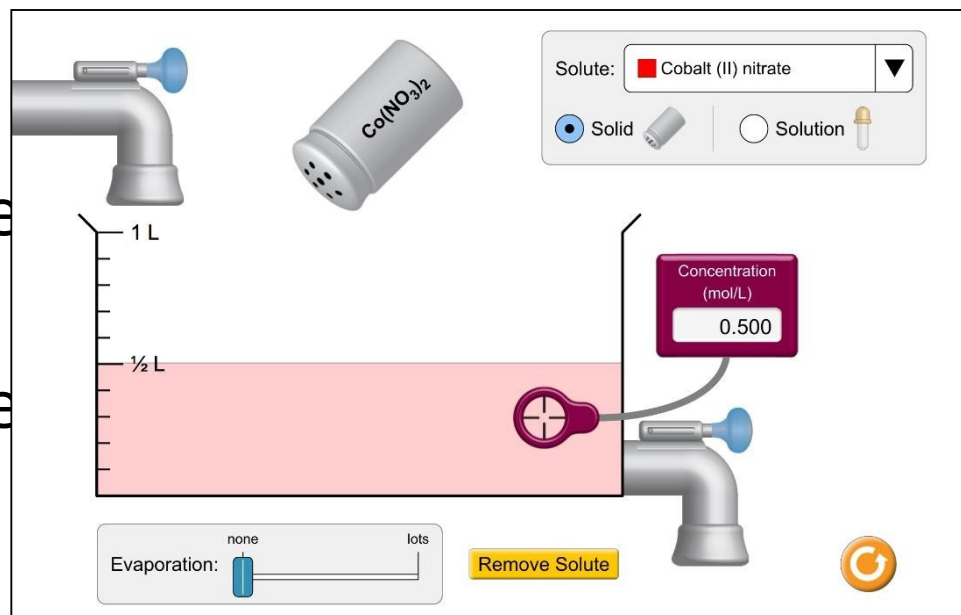
- A. (1) only
- B. (2) only
- C. (3) only
- D. (1) and (2)
- E. (2) and (3)



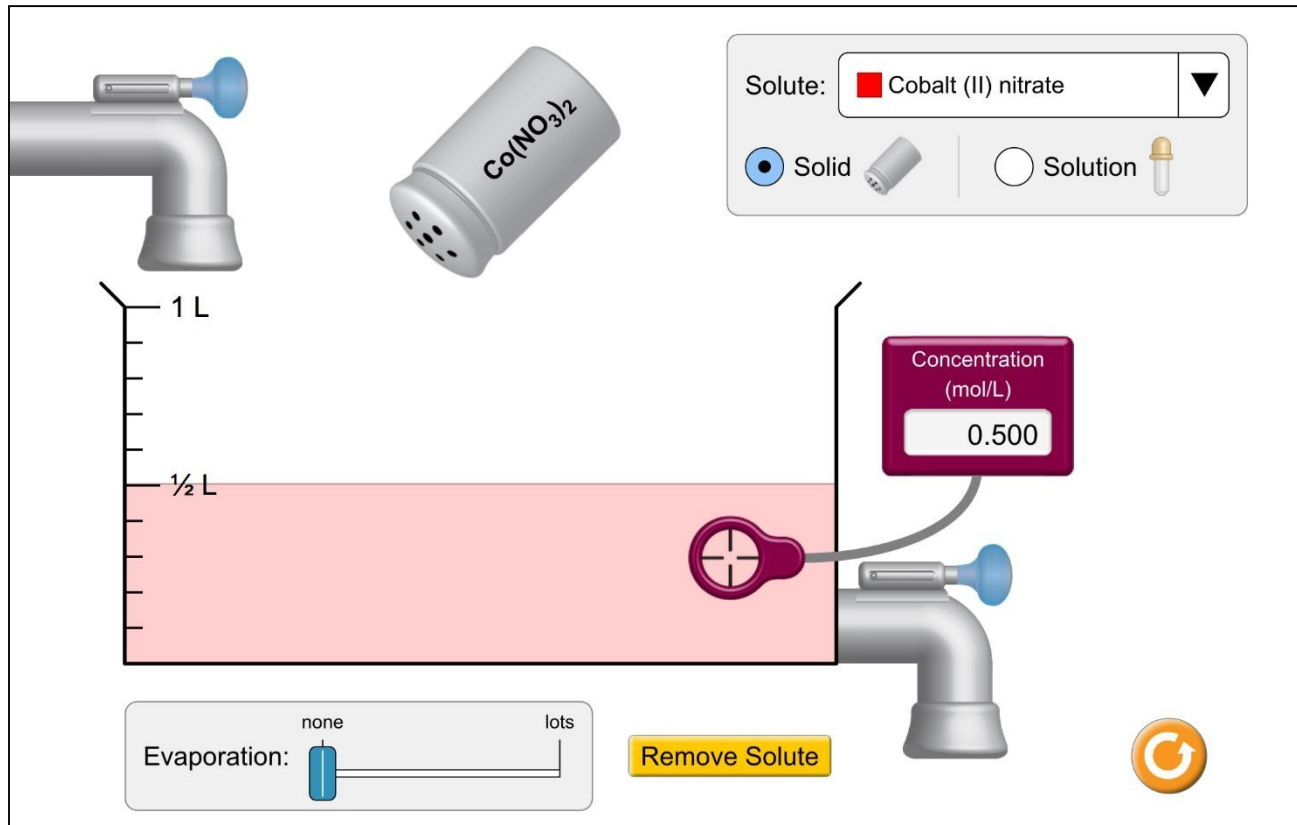
What will happen to the concentration and the number of moles when water is added?

Concentration Number of moles

- | | | |
|----|-----------|-----------|
| a. | Increase | Decrease |
| b. | Increase | Increase |
| c. | No change | No change |
| d. | Decrease | Decrease |
| e. | Decrease | No change |



How many moles of solute are in the beaker? (Show your calculations to find the number of moles).



- a. 0.05 moles b. 0.50 moles c. 1.00 moles

d. 0.150 moles e. None of these

